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EXAMINER				
SHEPELEV, KONSTANTIN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,477

Applicant(s)

ADAMSON ET AL.

Examiner

KONSTANTIN SHEPELEV

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 2, 4-6, 8, 10, 11, 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 2/7/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to application filed on May 10, 2005 in which claims 1-13 are presented for examination.

Status of Claims

Claims 1-13 are pending; of which claims 1, 9, and 13 are in independent form. Claims 2, 4-6, 8, 10, 11, and 13 are objected to by examiner. Claims 1-13 are rejected under 35 USC 103(a).

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Data storage system with access limiting connector for use in MP3 player.

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

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(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Applicant failed to clearly label the sections of the current specification.

3. The disclosure is objected to because it contains an embedded hyperlink or other form of browser-executable code. The hyperlink is found on page 8, line 5, of the current specification. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Objections

4. Claims 4, 5, 6, and 8 are objected to under 37 CFR 1.75(c) as being in improper form. Claim 4 is objected to because a multiple dependent claim 3. Claim 5 is objected to because of a multiple dependent claim 4. Claim 6 is objected to because of a multiple dependent claim 5. Claim 8 is objected to because of a multiple dependent claim 6. See

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MPEP § 608.01(n). Accordingly, examiner interprets claims 4, 5, and 6 as being dependent upon claim 1 and claim 8 as being dependent upon claim 6.

5. Claims 2, 10, 11, and 13 are objected to because of the following informalities:
- a. With respect to claims 2, 10, and 13, applicant uses the acronym DTCP in each given group of claims without disclosing the meaning of the acronym. The acronyms should be disclose the first time it appears in each individual group of claims.
 - b. With respect to claims 11 and 13, applicant uses acronyms EMI, CCI, and AV/C in each given group of claims without disclosing the meaning of the acronym. The acronyms should be disclose the first time it appears in each individual group of claims.
- Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 6, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fairman (US 2003/0155417 A1) in view of William Stallings, Cryptography and

Network Security: Principles and Practice, Third Edition, Prentice Hall, Englewood Cliffs, New Jersey (August 27, 2002) hereon after referred to as Stallings.

With respect to claim 1, Fairman teaches the limitation of “data storage means for storing data” (Fig. 3; page 2, paragraph 0014) as a media storage device.

Further, Fairman teaches the limitation of “an asynchronous transmitter/receiver” (Fig. 3; page 2, paragraph 0014) as an interface for coupling with the external media storage device [...] coupled via an IEEE 1394-2000 serial bus, where (page 1, paragraph 0009) the IEEE 1394-2000 standard is an international standard for implementing an inexpensive high-speed serial bus architecture which supports both asynchronous and isochronous format data transfers.

Furthermore, Fairman teaches the limitation of “data storage means being arranged to accept inputs and to output via an access limiting connector” (page 2, paragraph 0015) as a download interface for coupling with an external media storage device, wherein the processor instructs the storage medium to transmit the stored multimedia data file corresponding to the user selection upon receiving payment notification from the payment interface.

In addition, Fairman teaches the limitation of “at least selected data files of the stored data include copy control limiting information” (page 2, paragraph 0014) as the multimedia data file to be rented is downloaded with a corresponding expiration time.

Finally, Fairman teaches the limitation of “a permitted requested file being encrypted and transmitted asynchronously be the transmitter/receiver” (page 2, paragraph 0015) as the multimedia data file received by the external media storage

device is encrypted and the external media storage device decrypts the multimedia data file for playback, and the multimedia data file is transmitted from the download interface to the external media storage device over a serial bus that substantially complies with the IEEE-2000 1394 standard.

It is noted, however, that Fairman does not explicitly teach the limitation of "a request for a data file including the copy control limiting information from the data storage means being permitted by the access limiting connector only upon successful authentication."

On the other hand, Stallings teaches the abovementioned limitation (page 8) as in the context of network security, access control is the ability to limit and control the access to host systems and applications via communication links. To achieve this control, each entity trying to gain access must first be identified, or authenticated, so that access rights can be tailored to the individual.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to incorporate teachings of Stallings into the system of Fairman to limit and control access to the multimedia files.

With respect to claim 2, Fairman teaches the limitation of "the transmitter/receiver operates in accordance with the DTCP specification" (page 5, paragraph 0032) as the plurality of multimedia data files stored in the plurality of AVHDDs of the storage medium are preferably encrypted using 5C copy protection.

With respect to claim 3, Fairman teaches the limitation of "the access limiting connector is an IEEE 1394 bridge" (Page 2, paragraph 0015) as the download interface includes an interface circuit that substantially complies with an IEEE 1394-2000 standard.

With respect to claim 6, Fairman teaches the limitation of "communication system including a sink and a source, at least the sink incorporating a data storage system" (page 2, paragraph 0014) as a multimedia content vending machine enabling user to download multimedia files from a locally stored storage medium [...] to an externally connected media storage device.

Further, Fairman teaches the limitation of "the source includes encryption system arranged to communicate with the data storage system of the sink to facilitate asynchronous encrypted data transfer from the source to the sink" (page 2, paragraph 0015) as the multimedia data file received by the external media storage device is encrypted and the external media storage device decrypts the multimedia data file for playback.

It is noted, however, that Fairman does not explicitly teach the limitation of the authentication system arranged to communicate with the data storage.

On the other hand, Stallings teaches the abovementioned limitation (page 8) as in the context of network security, access control is the ability to limit and control the access to host systems and applications via communication links. To achieve this

control, each entity trying to gain access must first be identified, or authenticated, so that access rights can be tailored to the individual.

With respect to claim 8, Fairman discloses the limitation of "transmitted data files include a header (310) including copy control information and key change information" (page 5, paragraph 0034) as the internal AVHDD encrypts the expiration time and transmits the encrypted expiration time and the already encrypted multimedia data file, along with the keys to decrypt them both.

With respect to claim 9, it is rejected in view of the same reasons as stated in the rejection of independent claim 1.

With respect to claim 10, it is rejected in view of the same reasons as stated in the rejection of claim 2.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fairman (US 2003/0155417 A1) in view of Peter Johansson, Information technology – Serial Bus Protocol 2 (SBP-2), T10, Project 1155D, Revision 4 (May 19, 1998) hereon after referred to as Johansson.

With respect to claim 4, Fairman teaches (page 2, paragraph 0015) the storage medium that uses a serial buss that substantially complies with IEEE 1394 standard.

It is noted that Fairman does not explicitly teach the limitation of "the storage means comprises a serial bus 2 protocol data storage device."

On the other hand, Johansson teaches the abovementioned limitation (page 3, Abstract) as the standard that specifies a protocol for the transport of commands, data and status between devices connected by Serial Bus, a memory-mapped split-transaction bus defined by IEEE Std 1394-1995, Standard for a High Performance Serial Bus.

It would have been obvious to one of the ordinary skill in the art to incorporate teachings of Johansson into the system of Fairman to provide generic framework for delivery of commands, data and status between Serial Bus peripherals.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fairman (US 2003/0155417 A1) in view of White et al. (US 7,187,947 B1).

With respect to claim 5, Fairman teaches (page 2, paragraph 0014) the external media storage device.

It is noted, however, that Fairman does not explicitly teach the external media storage device to be an MP3 player.

On the other hand, white teaches the abovementioned limitation (column 9, lines 15-19) as electronic device may be operable as an audio player configured to play digital representation of music. For example, electronic device may also include an MP3 player operable to process the received information into an audio signal.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to incorporate teachings of White into the system of Fairman to expand the capabilities of the external media storage device.

9. Claims 7 and 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fairman (US 2003/0155417 A1) in view of Safadi (US 2002/0146237 A1).

With respect to claim 7, Fairman teaches a system connected by means of IEEE 1394-2000 networks.

It is noted, however, that Fairman does not explicitly teach the limitation of "an intermediate system in communication with the IEEE 1394 network connected to the sink and another network connected to the source."

On the other hand, Safadi teaches the abovementioned limitation (Abstract; Fig. 4) as apparatus that includes a transmitting device, a media device, and at least one receiver/playback device. The transmitting device transfers information or content, optionally as encrypted data over a secured channel [...]. The media device [...] receives the transferred information or content from transferring device and retransmits the content received from the transmitting device to at least one receiver/playback device.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to incorporate teaching of Safadi into the system of Fairman to establish a secure transfer of the multimedia content.

With respect to claim 12, it is rejected in view of the same reasons as stated in the rejection of claim 7.

10. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fairman (US 2003/0155417 A1) in view of Bardini et al. (US 2003/0169772 A1) and further in view of Hitachi et al., 5C Digital Transmission Content Protection White Paper, Revision 1.0, (July 14, 1998) hereon after referred to as Hitachi.

With respect to claim 11, Fairman teaches the limitation of "odd/even field used to convey key change notification, which fields are identical to the DTCP specification for isochronous packets" (page 5, paragraph 0034) as the internal AVHDD encrypts the expiration time and transmits the encrypted expiration time and the already encrypted multimedia data file, along with the keys to decrypt them both

Further, Fairman teaches the limitation of "transmitting each generated data packet asynchronously over the IEEE1394 bus" (page 2, paragraph 0014) the multimedia data file is transmitted from the download interface to the external media storage device over a serial bus that substantially complies with the IEEE-2000 1394 standard.

It is noted, however, that Fairman does not explicitly teach the limitations of "generating at least one data packet from the file", "a standard header consistent with headers used in DTCP and IEEE 1394 networks", "a payload header comprising an EMI field used to convey CCI information", and "a payload comprising encrypted data,

wherein an extension AV/C command is implemented to encrypt the data and map the DTCP security commands.”

On the other hand, Bardini teaches the limitation of “generating at least one data packet from the file” (Abstract) as a stream of non real-time isochronous data packets is formed by first packetizing the data stream into conventional isochronous data packets.

Further, Bardini teaches the limitation of “a standard header consistent with headers used in DTCP and IEEE 1394 networks” (page 7, paragraph 0051) as the header portion is created by first adding an IEEE 1394-2000 isochronous header according to the IEEE 1394-2000 standard.

Furthermore, Bardini teaches the limitation of “payload comprising encrypted data, wherein an extension AV/C command is implemented to encrypt the data and map the DTCP security commands” (page 7, paragraph 0051) as the data portions created by parsing the A/V stream content in sequential portions and adding a portion into the data portion according to IEC 61883 standards.

In addition, Hitachi teaches the limitation of “a payload header comprising an EMI field used to convey CCI information” (page 2, Copy Control Information (CCI)) as the Encryption Mode Indicator provides easily accessible yet secure transmission of CCI via the most significant two bits of the synch field of the isochronous packet header.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine teachings of Fairman, Bardini, and Hitachi to provide a secure method for transmission of the multimedia data.

With respect to claim 13, it is rejected in view of the same reasons as stated in the rejection of claim 11.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Szucs et al. (US 2003/0135730 A1)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KONSTANTIN SHEPELEV whose telephone number is (571)270-5213. The examiner can normally be reached on Mon - Thu 8:30 - 18:00, Fri 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Konstantin Shepelev/

7/22/2008

Examiner, Art Unit 2131

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2131